

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-223897

(43)Date of publication of application : 21.08.1998

(51)Int.Cl.

H01L 29/78  
H01L 21/28  
H01L 21/316  
H01L 21/3205  
H01L 21/768

(21)Application number : 09-033208

(71)Applicant : NIPPON STEEL CORP

(22)Date of filing : 31.01.1997

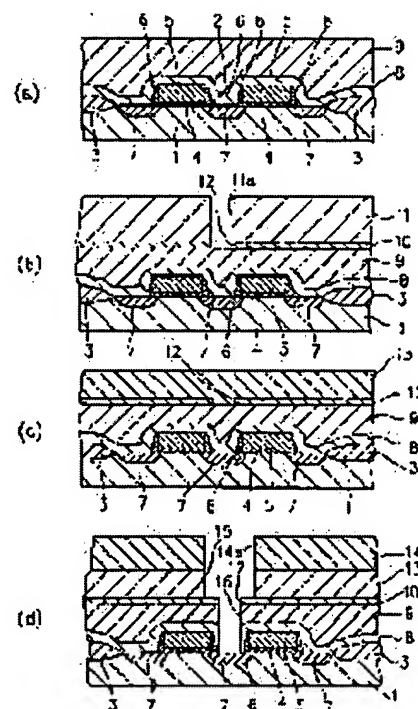
(72)Inventor : TAKUBI ATSUSHI

## (54) SEMICONDUCTOR DEVICE AND ITS MANUFACTURE

### (57)Abstract:

PROBLEM TO BE SOLVED: To form easily and with reliability connection holes and wiring layers by photolithography using high-resolution resist.

SOLUTION: Interlayer insulating films 8 and 9 are formed which cover gate electrode films 5 and impurities diffusion layers 7. A silicon nitride film 10 is formed on the interlayer insulating film 9 which exhibits a lower etching speed and a smaller film thickness than the interlayer insulating films 8 and 9. A hole 12 is made in the silicon nitride film 10 with a diameter equal to a desired contact hole. An interlayer insulating film 13 is formed on the silicon nitride film 10. A wiring slot 15 wider than the diameter of the hole is formed in the interlayer insulating film 13. A contact hole 16 in analogy to the hole 12 is formed in the interlayer insulating films 8 and 9 by using the silicon nitride film 10 as a mask.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of